This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-16 (canceled).

17. (Withdrawn) A method of analyzing blood, comprising:

applying a signal to a transducer element, wherein the signal has a value;

varying the value of the signal applied to the transducer element;

delivering blood to the transducer element;

measuring a response of the blood to the signal; and

determining a characteristic of the blood as a function of the measured response.

18. (Withdrawn) The method of claim 17, further comprising preparing the blood.

19. (Withdrawn) The method of claim 18, wherein preparing the blood comprises at least one of the following: adding a bulk activator, filtering, and applying a bioactive material to the transducer element.

20. (Withdrawn) The method of claim 18, further comprising determining the characteristic of the blood as a function of the preparing.

21. (Withdrawn) The method of claim 17, wherein the value is at least one of the following: frequency, amplitude, transfer function, phase, quality factor, impedance and admittance.

22. (Withdrawn) The method of claim 17, wherein the response is directly related to at least one of the following: a frequency value, an amplitude value and a phase value.

23. (Withdrawn) The method of claim 17, wherein the blood characteristics include at least one of the following: coagulation, activation of plasma factors, thrombin, and platelet function.

24. (Withdrawn) The method of claim 17, wherein the characteristic includes at least one of the following: clotting, coagulation, platelet aggregation, density, elasticity,

viscosity, clot stiffness, platelet concentration, platelet activation, platelet receptor activities, collagen receptor, GPIb function, blood hemostatic factor concentration, bleeding time, activated clotting time, activated partial thromboplastin time, prothrombin time, thrombin time, Fibrinogen, factor VIII deficiency, von Willebrand factor, tissue factor, specific drug concentration, therapeutic effects of anticoagulation, platelet inhibition, and thrombin inhibition.

25. (Withdrawn) The method of claim 17, further comprising determining at least one of the following based on the blood characteristics: excessive clotting and excessive bleeding. (We were going to put a claim here regarding a therapeutic range for clotting, but I don't see any support in the specification. Please identify such support.)

26. (Withdrawn) The method of claim 17, further comprising interrogating the blood.

27. (Withdrawn) The method of claim 17, further comprising preparing the transducer element.

28. (Withdrawn) The method of claim 27, wherein the preparing of the transducer comprises attaching a biofunctionalized layer to the transducer surface.

29. (Withdrawn) The method of claim 17, further comprising allowing a patient to stay in a therapeutic range.

30. (Withdrawn) The method of claim 26, wherein the interrogating comprises vibrating the blood using the transducer to generate a wave that penetrates the blood a predetermined distance.

31. (Withdrawn) The method of claim 26, wherein the vibration is at least one of the following: shear, torsional, compressional, and a combination thereof.

32. (Withdrawn) The method of claim 26, wherein the vibration is an acoustic wave.

33. (Currently Amended) A device for analyzing blood, comprising:

a transducer element;

a biological sensing media in communication with the transducer element;

a signal driver in communication with the transducer element, wherein the signal driver applies a signal to [[a]] the transducer element, and wherein the signal driver varies a value of the signal;

[[a]] an inlet port that directs blood to the transducer element; and

a signal processor in communication with the transducer element, wherein the signal processor measures a response of the blood to the signal and determines a characteristic of the blood as a function of the measured response.

34. (Previously Presented) The device of claim 33, wherein the transducer element includes at least one of the following: piezoelectric, electrostrictive, magnetostrictive, acoustooptic and thermo acoustic sensors, and a combination thereof.

35. (Previously Presented) The device of claim 33, wherein the transducer element includes an array of sensors.

36. (Previously Presented) The device of claim 33, wherein the transducer element comprises a bioactive material that facilitates determination of a characteristic of the blood.

37. (Previously Presented) The device of claim 33, wherein the value is at least one of the following: a frequency, an amplitude, and a phase.

38. (Previously Presented) The device of claim 37, wherein the frequency values ranges from 1 KHz to 10 GHz.

39. (Previously Presented) The device of claim 37, wherein the frequency values are provided to the transducer in at least one of the following ways: individually, sequentially, and simultaneously at the available frequencies.

40. (Previously Presented) The device of claim 37, wherein the frequency values include at least one of the following: resonant, antiresonant, harmonic and anharmonic frequencies of the first and higher orders.

41. (Currently Amended) The device of claim 33, wherein a depth of penetration into the blood by an effect created by the transducer element is in the range of 1 nanometer to 1 centimeter from a surface of the transducer element.

42. (Previously Presented) The device of claim 33, further comprising a catheter in communication with the transducer.

43. (Previously Presented) The device of claim 33, wherein the device is self-administered.

44. (Previously Presented) The device of claim 33, further comprising a first and second acoustic sensor, wherein the first sensor analyzes the blood, and wherein the second sensor compares the blood to a reference fluid.

45. (Currently Amended) The device of claim 33, wherein the transducer element is coated with collagen, wherein the value of the signal that is varied is a frequency and wherein a higher frequency permits detection of platelet adhesion, and wherein a lower frequency permits detection of coagulation.

46. (Previously Presented) The device of claim 33, wherein the transducer element is coated with tissue thromboplastin, and wherein a lower frequency is applied to the transducer element to permit detection of blood coagulation, and wherein a higher frequency is applied to detect at least one of one of plasma coagulation factor concentration and plasma coagulation factor activation.

47. (Previously Presented) The device of claim 33, further comprising a bulk bioactive material that facilitates determination of a characteristic of the blood.

48. (Previously Presented) The device of claim 33, further comprising data storage, data processing and data transmission.

49. (Previously Presented) The device of claim 48, wherein the data storage stores at least one of the following: medical patient data, blood data, temperature, heart rate, and blood pressure.

50. (Previously Presented) The device of claim 48, wherein the data processing unit provides medical condition information to a patient.

51. (Previously Presented) The device of claim 48, wherein the data transmission unit provides wired and wireless communication between the device, a patient and a medical health center.